

## SEQUENCE LISTING

&lt;110&gt; Roche Diagnostics GmbH

&lt;120&gt; Expression of alkaline phosphatase in yeast

&lt;130&gt; 5387/00/

&lt;140&gt;

&lt;141&gt;

&lt;160&gt; 38

&lt;170&gt; PatentIn Ver. 2.1

&lt;210&gt; 1

&lt;211&gt; 1476

&lt;212&gt; DNA

&lt;213&gt; Bovine

&lt;400&gt; 1

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tacctgtgtg ggggtcaagg caactacaga accatcgggt taagtgcagc cgcccgtac 360  
aatcagtga acacgacacg tgggaatgag gtcacgtctg tgatcaaccg ggccaagaaa 420  
gcagggaagg ccgtgggagt ggtgaccacc accaggggtg agcatgcctc cccagccggg 480  
gcctacgcgc acacggtgaa ccgaaactgg tactcagacg ccgacctgcc tgctgatgca 540  
cagaagaatg gctgccagga catcccccga cagctggtct acaacatgga tattgacgtg 600  
atcctgggtg gaggcogaat gtacatgttt cctgagggga cccagacccc tgaataccca 660  
gatgatgcca gtgtgaatgg agtccggaag gacaagcaga acctggtgca ggaatggcag 720  
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cccggaagg ccttagacag caagtcctac acctccatcc tctatggcaa tggcccaggc 1200  
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gcgcacatca tggcctttgc gggctgcgtg gaggcctaca ccgactgcaa tctgccagcc 1440  
cccgccaccg ccaccagcat ccccgactag ggtacc 1476

&lt;210&gt; 2

&lt;211&gt; 40

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Artificial

&lt;400&gt; 2

gcgcgaattc ctcatcccag ctgaggagga aaacccccgc

<210> 3  
 <211> 36  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Artificial

<400> 3  
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36

<210> 4  
 <211> 487  
 <212> PRT  
 <213> Bovine

<400> 4  
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 20 25 30  
 Ala Lys Asn Val Ile Leu Phe Leu Gly Asp Gly Met Gly Val Pro Thr  
 35 40 45  
 Val Thr Ala Thr Arg Ile Leu Lys Gly Gln Met Asn Gly Lys Leu Gly  
 50 55 60  
 Pro Glu Thr Pro Leu Ala Met Asp Gln Phe Pro Tyr Val Ala Leu Ser  
 65 70 75 80  
 Lys Thr Tyr Asn Val Asp Arg Gln Val Pro Asp Ser Ala Gly Thr Ala  
 85 90 95  
 Thr Ala Tyr Leu Cys Gly Val Lys Gly Asn Tyr Arg Thr Ile Gly Val  
 100 105 110  
 Ser Ala Ala Ala Arg Tyr Asn Gln Cys Asn Thr Thr Arg Gly Asn Glu  
 115 120 125  
 Val Thr Ser Val Ile Asn Arg Ala Lys Lys Ala Gly Lys Ala Val Gly  
 130 135 140  
 Val Val Thr Thr Thr Arg Val Gln His Ala Ser Pro Ala Gly Ala Tyr  
 145 150 155 160  
 Ala His Thr Val Asn Arg Asn Trp Tyr Ser Asp Ala Asp Leu Pro Ala  
 165 170 175  
 Asp Ala Gln Lys Asn Gly Cys Gln Asp Ile Ala Ala Gln Leu Val Tyr  
 180 185 190  
 Asn Met Asp Ile Asp Val Ile Leu Gly Gly Gly Arg Met Tyr Met Phe  
 195 200 205  
 Pro Glu Gly Thr Pro Asp Pro Glu Tyr Pro Asp Asp Ala Ser Val Asn  
 210 215 220  
 Gly Val Arg Lys Asp Lys Gln Asn Leu Val Gln Glu Trp Gln Ala Lys  
 225 230 235 240

His Gln Gly Ala Gln Tyr Val Trp Asn Arg Thr Ala Leu Leu Gln Ala  
 245 250 255  
 Ala Asp Asp Ser Ser Val Thr His Leu Met Gly Leu Phe Glu Pro Ala  
 260 265 270  
 Asp Met Lys Tyr Asn Val Gln Gln Asp His Thr Lys Asp Pro Thr Leu  
 275 280 285  
 Ala Glu Met Thr Glu Ala Ala Leu Gln Val Leu Ser Arg Asn Pro Arg  
 290 295 300  
 Gly Phe Tyr Leu Phe Val Glu Gly Gly Arg Ile Asp His Gly His His  
 305 310 315 320  
 Asp Gly Lys Ala Tyr Met Ala Leu Thr Glu Ala Ile Met Phe Asp Asn  
 325 330 335  
 Ala Ile Ala Lys Ala Asn Glu Leu Thr Ser Glu Leu Asp Thr Leu Ile  
 340 345 350  
 Leu Val Thr Ala Asp His Ser His Val Phe Ser Phe Gly Gly Tyr Thr  
 355 360 365  
 Leu Arg Gly Thr Ser Ile Phe Gly Leu Ala Pro Gly Lys Ala Leu Asp  
 370 375 380  
 Ser Lys Ser Tyr Thr Ser Ile Leu Tyr Gly Asn Gly Pro Gly Tyr Ala  
 385 390 395 400  
 Leu Gly Gly Gly Ser Arg Pro Asp Val Asn Gly Ser Thr Ser Glu Glu  
 405 410 415  
 Pro Ser Tyr Arg Gln Gln Ala Ala Val Pro Leu Ala Ser Glu Thr His  
 420 425 430  
 Gly Gly Glu Asp Val Ala Val Phe Ala Arg Gly Pro Gln Ala His Leu  
 435 440 445  
 Val His Gly Val Gln Glu Glu Thr Phe Val Ala His Ile Met Ala Phe  
 450 455 460  
 Ala Gly Cys Val Glu Pro Tyr Thr Asp Cys Asn Leu Pro Ala Pro Ala  
 465 470 475 480  
 Thr Ala Thr Ser Ile Pro Asp  
 485

&lt;210&gt; 5

&lt;211&gt; 1476

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Artificial

&lt;400&gt; 5

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tttttgggtg atggtatggg tgttccaact gttactgcta ctagaatttt gaaggggtcaa 180
atgaatggta agttgggtcc agaaactcca ttggctatgg atcaatttcc atacgttgct 240
ttgtctaaga cttacaatgt tgatagacaa gttccagatt ctgctgggtac tgctactgct 300
tacttgtgtg gtgttaaggg taattacaga actattgggtg tttctgctgc tgctagatac 360
aatcaatgta atactactag aggtaatgaa gttacttctg ttattaatag agctaagaag 420
gctggtaagg ctggttggtg tgttactact actagagttc aacatgcttc tccagctggg 480
gcttacgctc atactgttaa tagaaattgg tactctgatg ctgatttgcc agctgatgct 540
caaaagaatg gttgtcaaga tattgctgct caattggttt acaatatgga tattgatggt 600
attttgggtg gtggtagaat gtacatgttt ccagaaggta ctccagatcc agaataccca 660
gatgatgctt ctgttaatgg tgttagaaag gataagcaaa atttgggttca agaatggcaa 720
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gattctagtg ttactcattt gatgggtttg tttgaaccag ctgatatgaa gtataatggt 840
caacaagatc atactaagga tccaactttg gctgaaatga ctgaagctgc tttgcaagtt 900
ttgtctagaa atccaagagg tttttacttg tttggtgaag gtggtagaat tgatcatggt 960
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tatgctttgg gtgggtgggtc tagaccagat gttaatggta gtactagtga agaaccatct 1260
tacagacaac aagctgctgt tccattggct agtgaaactc atgggtgggtga agatgttgct 1320
gttttttgcta gaggtccaca agctcatttg gttcatgggt ttcaagaaga aacttttggt 1380
gctcatatta tggcttttgc tggttgtgtt gaaccataca ctgattgtaa tttgccagct 1440
ccagctactg ctactagtat tccagattaa ggtacc 1476

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&lt;210&gt; 6

&lt;211&gt; 78

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Artificial

&lt;400&gt; 6

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gcgcgaattc ttgattccag ctgaagaaga aaatccagct ttttgggaata gacaagctgc 60
tcaagctttg gatgttgc 78

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&lt;210&gt; 7

&lt;211&gt; 70

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Artificial

&lt;400&gt; 7

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ccaaaaacaa aataacattc ttagcagcag tttgaattgg ttgcaacttc ttagcaacat 60
ccaaagcttg 70

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&lt;210&gt; 8

&lt;211&gt; 69

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Artificial

&lt;400&gt; 8

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gaatgttatt ttgtttttgg gtgatgggtat ggggtgttcca actgttactg ctactagaat 60

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tttgaaggg

69

<210> 9  
 <211> 70  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Artificial

<400> 9  
 ggaaattgat ccatagccaa tggagtttct ggacccaact taccattcat ttgacccttc 60  
 aaaattctag 70

<210> 10  
 <211> 71  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Artificial

<400> 10  
 gctatggatc aatttccata cgttgctttg tctaagactt acaatggtga tagacaagtt 60  
 ccagattctg c 71

<210> 11  
 <211> 71  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Artificial

<400> 11  
 ccaatagttc tgtaattacc cttaacacca cacaagtaag cagtagcagt accagcagaa 60  
 tctggaactt g 71

<210> 12  
 <211> 72  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Artificial

<400> 12  
 gtaattacag aactattggt gtttctgctg ctgctagata caatcaatgt aatactacta 60  
 gaggtaatga ag 72

<210> 13  
 <211> 74  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Artificial

&lt;400&gt; 13

agtaacaaca ccaacagcct taccagcctt cttagctcta ttaataacag aagtaacttc 60  
 attacctcta gtag 74

&lt;210&gt; 14

&lt;211&gt; 74

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Artificial

&lt;400&gt; 14

gctgttggtg ttgttactac tactagagtt caacatgctt ctccagctgg tgcttacgct 60  
 catactgtta atag 74

&lt;210&gt; 15

&lt;211&gt; 68

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Artificial

&lt;400&gt; 15

caaccattct tttagagcatc agctggcaaa tcagcatcag agtaccaatt tctattaaca 60  
 gtatgagc 68

&lt;210&gt; 16

&lt;211&gt; 55

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Artificial

&lt;400&gt; 16

gatgctcaaa agaatgggtg tcaagatatt gctgctcaat tggtttaca tatgg 55

&lt;210&gt; 17

&lt;211&gt; 72

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Artificial

&lt;400&gt; 17

ccttctggaa acatgtacat tctaccacca cccaaaataa catcaatatc catattgtaa 60  
 accaattgag ca 72

&lt;210&gt; 18

&lt;211&gt; 71

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence: Artificial

&lt;400&gt; 18

gtacatgttt ccagaaggta ctccagatcc agaataccca gatgatgctt ctgttaatgg 60

tgttagaaag g

71

<210> 19

<211> 73

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificial

<400> 19

catattgagc accttgatgc ttagcttgcc attcctgaac caaattttgc ttatcctttc 60  
taacaccatt aac 73

<210> 20

<211> 71

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificial

<400> 20

gcatcaaggc gctcaatatg tttggaatag aactgctttg ttgcaagctg ctgatgattc 60  
tagtggtact c 71

<210> 21

<211> 54

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificial

<400> 21

cttcatatca gctggttcaa acaaaccat caaatgagta acactagaat catc 54

<210> 22

<211> 59

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificial

<400> 22

gaaccagctg atatgaagta taatgttcaa caagatcata ctaaggatcc aactttggc 59

<210> 23

<211> 67

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificial

<400> 23

cctcttggat ttctagacaa aacttgcaaa gcagcttcag tcatttcagc caaagttgga 60  
tccttag 67

<210> 24  
 <211> 69  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Artificial

<400> 24  
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 tcatgatgg 69

<210> 25  
 <211> 73  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Artificial

<400> 25  
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 catgatgacc atg 73

<210> 26  
 <211> 74  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Artificial

<400> 26  
 gataatgcta ttgctaaggc taatgaattg acttctgaat tggatacttt gattttgggtt 60  
 actgctgatc atag 74

<210> 27  
 <211> 73  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Artificial

<400> 27  
 ccaaaccaaa aatagaagta cctctcaaag tgtaaccacc aaaagaaaaa acatgactat 60  
 gatcagcagt aac 73

<210> 28  
 <211> 73  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Artificial

<400> 28  
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 tgtatggtaa tgg 73



<210> 29  
 <211> 76  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Artificial

<400> 29  
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 ccatacaaaa tagaag 76

<210> 30  
 <211> 77  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Artificial

<400> 30  
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 gctagtgaag ctcatgg 77

<210> 31  
 <211> 73  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Artificial

<400> 31  
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 gagtttcact agc 73

<210> 32  
 <211> 74  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Artificial

<400> 32  
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 ggttgtgttg aacc 74

<210> 33  
 <211> 82  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Artificial

<400> 33  
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 tgtatggttc aacacaacca gc 82

<210> 34  
 <211> 31  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Artificial

<400> 34  
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31

<210> 35  
 <211> 29  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Artificial

<400> 35  
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29

<210> 36  
 <211> 10  
 <212> PRT  
 <213> *Saccharomyces cerevisiae*

<400> 36  
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       1                  5                  10

<210> 37  
 <211> 4  
 <212> PRT  
 <213> *Saccharomyces cerevisiae*

<400> 37  
 Leu Ile Pro Ala  
       1

<210> 38  
 <211> 6  
 <212> PRT  
 <213> *Saccharomyces cerevisiae*

<400> 38  
 Glu Ala Glu Ala Glu Phe  
       1                  5